

## REMARKS

Reconsideration of the application in light of the following remarks is respectfully requested.

## Status of the Claims

Claims 1-14 are pending.

### Allowable Subject Matter

Applicant appreciatively acknowledges the Examiner's allowance of claim 14, and the indication of allowable subject matter in claims 3, 4 and 10.

### Rejection Under 35 U.S.C. § 102

Claims 1-2, 8 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,252,552 to Tarvas et al. (“Tarvas ‘552”) Applicant respectfully traverses the rejection.

The Examiner contends that Tarvas ‘552 discloses “a radiating element galvanically isolated from other conductive parts of the radio device,” as recited in claims 1 and 13. In response to Applicant’s previous arguments, the Examiner states:

The examiner maintains that Tarvas '552, teaches all the limitations disclosed in claims 1 and 13, because as shown in figure 10, the feed pin 1003, is electromagnetically coupled to the radiating planar 1002 (i.e. galvanically isolated), **there is also no galvanic contact with the ground plane** and the feed pin is further connected to the radio apparatus (column 6, lines 5-7). According to the examiner, the structure as described above, taught by Tarvas, meets the following limitation: "a radiating element galvanically isolated from other conductive parts of the radio device", because the radiating element is galvanically isolated from the feed pin, and the feed pin is also galvanically isolated from the ground plane, and further the feed pin is connected to the radio device, so that the radio element is galvanically isolated from the other part of radio device (i.e. **radio circuitry to the feed pin**).

(Detailed Action, item 10, page 8 (emphasis added).)

Applicant respectfully disagrees with both the Examiner's above-quoted reading of the reference. Tarvas '552 Figure 10 clearly depicts ground contact 1004 connecting the radiating element 1002 to the ground plane 1001. Thus, Tarvas '552 discloses a radiating element **that is galvanically connected to a conductive part** of the radio device. Tarvas '552 is clear on this disclosure. For example see ground contact 804, Fig. 8 (column 4, line 60), and ground contact 1109 in Figs. 11a and 11b (column 6, lines 50-52).

Tarvas '552 clearly describes at column 6, lines 38-40 that "a galvanic contact must be provided between the ground coupling pad 1104 and the planar radiating element 1101 . . . ." Tarvas '552 discloses "wherein a radiating element 201, ground plane 202, and a ground contact 203 interconnecting these two are realized as metal platings on surfaces of a solid dielectric body 204." (Tarvas '552, column 1, lines 40-43.) Clearly, ground contact 203 galvanically interconnects Tarvas '552's radiating element with other conductive parts. A short-circuit conductor corresponding to ground contact 203 exists in every embodiment disclosed in Tarvas '552.

Further, the Examiner contends that Tarvas '552 discloses a feed circuit that “includes a reactive component and also couples the antenna feed point to the ground plane.” (Detailed Action, item 3, page 3.) While the feed conductor disclosed in Tarvas '552 is a conductor transmission line it would have a trace of frequency-dependent reactance as would any other transmission line. However, feed conductor disclosed in the Tarvas '552 device is not a reactive component. The mere presence of a transmission line's frequency dependent characteristics of reactive behavior does not add the structure of a “reactive component” as

recited in the claimed invention. Tarvas '552 fails to disclose, or suggest, a feed circuit that "includes a reactive component," as recited in claims 1 and 13.

Applicant submits that the above discussion demonstrates that Tarvas '552 fails to disclose each and every element of claims 1 and 13. Thus, Tarvas '552 fails to anticipate claims 1 and 13. Claims 2 and 8 depend from claim 1, and therefore, are patentable over Tarvas '552 for at least the same reasons as claim 1.

Reconsideration and withdrawal of the rejection is requested.

### **Rejection Under 35 U.S.C. § 103**

Claims 5-7, 9 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tarvas '552 in view of U.S. Patent No. 6,469,673 to Kaiponen. Claim 12 stands rejected as being unpatentable over Tarvas '552 in view of U.S. Patent No. 6,759,989 to Tarvas et al. ("Tarvas '989"). Applicant respectfully traverses these rejections.

The Examiner relies on Kaiponen as disclosing: a radiating element which follows the surface shape of a radio device; a radiating element that is a rigid conductive piece belonging to a radio device cover; and an antenna attached to the non-conductive portions of a radio device. The Examiner contends that the combination of Tarvas '552 and Kaiponen results in the claimed invention. However, Kaiponen neither discloses nor suggests those features of dependent claims 5-7, 9 and 11 demonstrated above to be missing from Tarvas '552 with respect to their base claim. Therefore, Applicant submits that the combination of Tarvas '552 and Kaiponen neither discloses nor suggests the invention of claims 5-7, 9 and 11. Thus, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness.

The Examiner relies on Tarvas '989 as disclosing placement of a parasitic element to improve an upper operating band. The Examiner contends that the combination of Tarvas '552 and Tarvas '989 results in the claimed invention. However, Tarvas '989 neither discloses nor suggests those features of dependent claim 12 demonstrated above to be missing from Tarvas '552 with respect to its base claim. Therefore, Applicant submits that the combination of Tarvas '552 and Tarvas '989 neither discloses nor suggests the invention of claim 12. Thus, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness. Reconsideration and withdrawal of the rejection is requested.

### **CONCLUSION**

Each and every point raised in the Office Action dated January 10, 2007 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-14 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

